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## **FIRE PREVENTION PROGRAM**

### **HYDRANT MAINTENANCE GUIDELINE**

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#### **PURPOSE**

The inspection of fire hydrants is critical to determining the readiness of the hydrants to provide water at fire emergencies. The inspections shall verify the location, accessibility, proper mechanical operation, and water flow from the hydrants.

#### **SCOPE**

- Annual inspection, maintenance, and testing of hydrants
- Fire prevention office will provide/coordinate hydrant testing with City of Gallup Water Dept.
- The fire prevention office will provide the Battalion Chief for each crew a list of assigned hydrants for their Crew.
- Hydrant maintenance will be conducted starting on or about the 1<sup>st</sup> of June and be completed by end of August.
- Upon completion of the hydrant Inspection and Maintenance the prevention office will compile all work orders and provide them to the Water Department.
- As hydrant work orders are completed by the water department. The repaired hydrants will be reassigned to the crews for verification of functionality. (Work orders will be updated and marked YES as Completed or left as NO and Prevention Office notified.)

#### **METHODS / PROCEDURES:**

##### **TOOLS:**

- a. Clip Board and Paper
- b. Hydrant Bucket/Tool Box
  - a. Hydrant Wrench
  - b. Pressure Gauge
  - c. Allan Wrench
  - d. Screw Driver
  - e. Grease Gun
  - f. Oil Can
  - g. Out of Service Rings (if available)
  - h. Spare Gaskets (if available)



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## INSPECTION AND MAINTENANCE

1. Position apparatus as necessary to assure the safety of employees from passing traffic. Do not obstruct traffic unnecessarily. Personnel used to direct traffic shall wear appropriate reflective clothing.

2. Inspect the fire hydrant for accessibility. The center of the 4 ½ -inch connection should be no lower than 18-inches above the ground. There should be no obstructions, including the ground, preventing easy coupling of hoses or turning of hydrant wrench. The hydrant should be visible from all approaches. There should be no brush or tree limbs that could interfere with anyone approaching the hydrant and attempting to connect to it or operate it.

- a. Crews should make minor corrections such as removal of weeds from around the hydrant. 3-foot clear space around the hydrant is required. More significant work such as heavy brush removal, significant digging, raising of a hydrant which is set too low, or other obstruction within the 3-foot clear space should be noted on the work order.

3. Remove all caps and inspect threads and outlets for damage or obstruction. Replace caps slightly more than hand tight.

4. Lubrication:

- a. Remove oil filler plug.
- b. Add A-51 Fire Hydrant oil until full.
- c. Reinstall plug. Do not over tighten.
- d. If hydrant has a grease fitting: one – two pumps from grease gun is adequate.
- e. Remove caps.
- f. Inspect gasket and replace damaged gasket if gaskets are available.
  - a. If no gaskets are available note on Work Order.
- g. Use wire brush if necessary to clear debris from threads.
- h. Put caps back on hydrants slightly more than hand tight. Do not over tighten.



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5. Slowly open hydrant completely with caps in place. Determine water has filled hydrant and turn hydrant off completely. Note any difficulty opening or closing hydrant.

- a. Hydrants need to be fully opened/closed slowly to prevent water hammer which could blow off the hydrant or cause a break on the mainline. Opening a hydrant too fast can also cause discolored water in the distribution system from the rapid change in velocity.
- b. Hydrant should open and close fully and shouldn't leak at either the stem, bonnet, or nozzle. Valves that are difficult to operate, have bent stems, or don't open or close fully should be noted on the work order.
- c. Discontinue Inspection and maintenance of Hydrants that are unable to close and remain pressurized and report hydrant condition immediately to Battalion Chief.

6. Observe hydrant for proper draining.

7. Remove one cap and place pressure gauge on hydrant with bleeder valve in open position.

8. Slowly open hydrant completely and allow air to escape through bleeder valve on gauge.

9. Close bleeder valve on gauge and record static pressure reading.

10. Slowly close hydrant completely, observing pressure dropping on gauge.

11. Remove gauge and replace cap slightly more than hand tight.

12. Verify hydrant number, location, and any deficiencies noted.

**Paint:**

Paint should be in good condition. Hydrants with chips or rust showing should be touched up with aerosol paint (if provided). Hydrants in severe need of repainting should be reported on the work order.

**Documentation:**

1. The Prevention Office will open a work order for each hydrant prior to the start of hydrant maintenance and inspections.

- a. Preview work orders prior to start of hydrant maintenance for notes on information to be record.



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- b. Crews are not to create new hydrant work orders during hydrant maintenance and inspection.
    - c. If Crew is unable to locate a hydrant work orders contact the Prevention Office.
  2. If no deficiencies are noted for a hydrant during hydrant inspection and maintenance, fill out the work order and mark it as YES for completed.
  3. If hydrant is found to be out of service, open the hydrant information page and mark it as out of service, fill out work order and leave work order marked as NO for completed.
  4. Hydrants that are in service but have deficiencies, fill out work order and leave work order marked as NO for completed.
  5. Battalion Chief or designee should review all work orders to ensure that they have been filled out and marked as YES or NO as appropriate.

**Hydrants Not in the System:**

If a hydrant is found, that is not in the ERS, it should be inspected and maintenance performed. Prevention Office will add the hydrant to the ERS. The following information should be e-mailed to the Prevention Office:

- a. Hydrant Location
- b. Hydrant manufacturer and date
- c. Static Pressure
- d. In Service or out of service status
- e. Deficiencies Noted

  
Signature / Date 5/22/17